

5 Other Required NEPA/CEQA Considerations

5.0 OTHER REQUIRED NEPA/CEQA CONSIDERATIONS

5.1 INTRODUCTION TO ADDITIONAL NEPA/CEQA REQUIREMENTS DISCUSSED IN THIS SECTION

Both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require analysis of significant irreversible changes. These include unavoidable impacts; irreversible and irretrievable commitment of resources; relationships between short-term uses and long-term productivity; and growth-inducing impacts. These are described in the following paragraphs.

5.2 ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT THAT CANNOT BE MITIGATED TO LESS THAN SIGNIFICANT

In general, most unavoidable adverse impacts associated with the proposed Project are anticipated to be short-term and/or localized; Subsection 5.2.2, "Significant Unavoidable Impacts," addresses the impacts that are significant and unavoidable.

5.2.1 Unavoidable Adverse Impacts

5.2.1.1 Public Safety

Based on long-term national statistics for natural gas transmission pipelines, the frequency of a significant pipeline accident occurring that would affect the public is calculated at four in one hundred thousand per pipeline mile per year; this risk analysis indicates that such an accident would be unlikely to occur. The frequency is expected to be even lower because the pipelines would be new and would incorporate design and operational improvements learned from past accidents. In addition, more stringent engineering design requirements would be imposed, and additional mitigation has been recommended. The annual frequency of a worst-case accident of LNG causing a release at the floating storage and regasification unit (FSRU) would be between one in one million and six in ten million.

However, the Agencies have, for the purposes of the public safety analysis conducted for this Project, conservatively identified (that is, in a manner more protective of the environment) the potential consequences associated with onshore pipeline accidents as Class I, because even though the probability of an accident occurring is low, members of the public could be harmed if an accident were to occur. Whether or not anyone would actually be injured would depend on many factors such as the nature of the accident, the number of people in the area at the time, the response time by emergency personnel such as firefighters, and other factors. The recommended feasible mitigation measures have been designed to reduce both the frequency and the consequences of any potential accidents. (See also Subsection 5.2.2, "Significant Unavoidable Impacts.")

5.2.1.2 Marine Traffic

Minor unavoidable effects on marine traffic would occur due to increased vessel traffic during operations. During operations, liquefied natural gas (LNG) carriers would call at Cabrillo Port two to three times per week and would need to be assisted by two tugboats, one of which would come from Port Hueneme. After docking, one of these tugboats would remain on-site to patrol the safety zone surrounding the FSRU.

5.2.1.3 Aesthetics

The presence of the FSRU has an unavoidable aesthetic effect. The FSRU would resemble a large tanker and would be permanently moored offshore. During the day on clear days, the FSRU would be visible, thus permanently altering the viewshed. At night, lights from the FSRU could be seen onshore and offshore; this is unavoidable because lighting is necessary to ensure the safety of the facility.

5.2.1.4 Agriculture and Soil Resources

Minor but unavoidable disturbance of agricultural fields and soil would occur during the installation of the onshore pipeline. The onshore pipeline in the City of Oxnard and Ventura County would be installed primarily within existing road right of ways (ROWs), but in some areas would cross existing agricultural fields. Another unavoidable effect would be the conversion of less than one acre of orchard to industrial use for the expansion of the Center Road Valve Station.

5.2.1.5 Air Quality

The U.S. Environmental Protection Agency (USEPA) and the Ventura County Air Pollution Control District (VCAPCD) would require implementation of offsets and ongoing development of emission control technology to reduce significant impacts.

5.2.1.6 Biological Resources - Marine

Unavoidable adverse impacts on listed and other marine mammals and migratory birds would result from the installation and operation of the proposed Project as well as from vessel and helicopter traffic. Marine animals would be affected by noise and disturbances associated with offshore activities.

5.2.1.7 Biological Resources - Terrestrial

Unavoidable adverse effects on listed terrestrial and aquatic biota would result during the installation of the onshore pipeline. Terrestrial biota could be disturbed, removed, or, in rare instances, killed during the clearing, trenching, or installation of the onshore pipeline, but measures would be taken to reduce the effects on special status species to less than significant.

5.2.1.8 Cultural Resources

Construction of the proposed Project could result in the loss of unique or significant archaeological information. Required archaeological surveys significantly lower the potential for this loss by identifying archaeological sites prior to an impact, thereby making avoidance or mitigation of impacts possible.

5.2.1.9 Geological Resources

The proposed Project has no unavoidable effects.

5.2.1.10 Hazardous Materials

Hazardous materials would be used during construction and operations but would not result in unavoidable effects.

5.2.1.11 Land Use

The Project would require the commitment of small amounts of land to use as a public utility, a minor change that is consistent with local plans.

5.2.1.12 Noise

Effects on the marine noise environment, caused by terminal operations, supply vessels, crew vessels, LNG carriers, and tugboats would be unavoidable.

5.2.1.13 Socioeconomics

Creation of a safety zone in the vicinity of the proposed Project would result in limited displacement of commercial fishers during the period that the deepwater port (DWP) would be licensed for operations. Losses of fishing resources and fishing gear could occur from the placement of the mooring turret and the laying of the offshore pipelines. The minor effects on fishing would be unavoidable because of the need to ensure the safety of the facility and need for pipelines to transport the natural gas to shore.

5.2.1.14 Recreation

Creation of a safety zone in the vicinity of the proposed Project would result in limited displacement of recreational boaters during the period that the DWP would be licensed for operations. The minor effects on recreation would be unavoidable because of the need to ensure the safety of the facility. (See also Subsection 5.2.2, "Significant Unavoidable Impacts.")

5.2.1.15 Transportation

Unavoidable temporary effects on land-based transportation would occur during installation of the onshore pipeline.

5.2.1.16 Water Quality

Routine offshore operations would have unavoidable effects to varying degrees on the water quality of the surrounding water if the proposed Project is implemented. Installation of the mooring turret and the offshore pipeline would increase turbidity locally while activity is occurring. Other accidental discharges would affect water quality, but these would be infrequent and quickly dispersed or cleaned up. Similarly, the potential for an unplanned release of drilling muds could occur during installation of the shore crossing, but this would be quickly mitigated.

5.2.1.17 Environmental Justice

In comparison with Hispanic or Latino populations in Ventura County and the State, a larger percentage of Hispanic or Latinos reside along the proposed Center Road Pipeline and alternate routes. Because the Hispanic or Latino population along the route is more than 50 percent of the population and exceeds the percentage of the Hispanic and Latino population in Ventura County, the ethnic composition of the population located along the Center Road Pipeline was investigated using census tract and census block information. In addition, the number of people along the Center Road pipeline route that are below the poverty level exceeds the number in Ventura County. Along the Line 225 Pipeline Loop or its alternatives, the census data indicate that no minority or low-income community is present that warrants a more detailed block-level analysis.

At MP 4.1 along the Center Road Pipeline route, there are two mobile home parks that, due to the type of construction, could be subject to a significant safety impact in the case of an accident. Because the housing is less robust, if a pipeline rupture occurs the residents at these mobile home parks are close enough to the pipeline route that a gas release and the resulting fire would likely spread more rapidly or affect a greater area resulting in a disproportionately adverse effect. Thus, the Project could result in a significant Environmental Justice impact at this location.

The probability of an accident occurring is low, but members of the public could be harmed if an accident were to occur. Whether or not anyone would actually be injured would depend on many factors, e.g., the nature of the accident, the number of people in the area at the time, the response time by emergency personnel such as firefighters, and other factors.

Mitigation for this potential safety impact includes adding additional shutoff valves along the pipeline in this location and constructing the pipeline to meet Class 3 standards. The recommended feasible mitigation measures have been designed to reduce both the frequency and the consequences of any potential accidents. In addition, the Agencies have recommended that the Applicant provide all Project information in Spanish; that a translator be present at all meetings; and that smoke detector and escape planning materials be provided to all residents in HCAs, including residents of mobile homes.

The Agency staff could consult further with the affected communities to identify additional opportunities for communication with environmental justice communities and would encourage additional discussion and input from residents of those communities, particularly with regard to mitigation measures proposed to reduce the potential public safety impacts near manufactured homes or mobile home communities.

5.2.2 Significant Unavoidable Impacts

Effects on all resources were evaluated to determine any significant unavoidable impacts. Approval of the Project would be subject to a Statement of Overriding Considerations under the CEQA due to the significant unavoidable impacts that would remain after mitigation is applied.

There are eight impacts considered to be significant (i.e., Class I) that cannot be mitigated to less than significant:

- Impact Public Safety (PS)-2: Although rare, a high-energy collision with the FSRU or an LNG carrier and another vessel, or from an intentional attack, could cause a rupture of one or more Moss tanks containing LNG, leading to a release of an un-ignited vapor cloud that could extend beyond the 1,640-foot (500-m) radius safety zone around the FSRU or could impact members of the boating public in the vicinity of an LNG carrier.
- Impact PS-3: There is a potential for fishing gear to become hung up on the pipelines and potentially damage one or both of the subsea pipelines. Similar damage may occur as a result of a seismic event or subsea landslide.
- Impact PS-4: The potential exists for accidental or intentional damage to the buried or aboveground pipelines and valves carrying unodorized natural gas. Similar damage may occur due to a seismic event. This would result in the release of an unodorized natural gas cloud at concentrations likely to be in the flammable range.
- Impact PS-6: An operational incidents, human error, equipment failures, or as a result of natural phenomena (earthquakes, landslides, etc.) could result in the release of natural gas from the high pressure pipelines which could subsequently become ignited.
- Impact PS-7: In the event of an accident, there is greater likelihood of injury, fatality, and property damage due to fire or explosion in areas of less robust housing construction, a long-term impact.
- Impact PS-8: Observed outdoor uses at the mobile home park on Dufau Road near Milepost (MP) 4.1 are sufficient to warrant designating this area as an HCA.
- Impact AES-3: The FSRU would change the visual character of the ocean view for recreational boaters.

- Impact Rec-3: The presence of the Project would alter the recreational experience of recreational boaters, including visitors on whale-watching trips and other visitors to the Channel Islands National Park.

5.3 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Effects on resources are often characterized with respect to their being of short- or long-term duration. This section, highlighting some of the broader relationships between short- and long-term effects, is not intended to repeat analyses already provided. Rather, this section presents some of the tradeoffs in the relationship between short-term uses of the environment and the maintenance and enhancement of long-term productivity of resources. That is, an important consideration when analyzing the effects of a proposed Project is whether it will result in short-term environmental effects (adverse or beneficial) to the detriment of achieving long-term or maximizing productivity of these resources. Short-term refers to the duration of installation and operation of the Cabrillo Project DWP, and long-term refers to an indefinite period following decommissioning of the DWP.

The installation and removal of mooring systems and pipelines would cause minor, localized effects in the short-term. If Project components were not removed after decommissioning, the impacts would be longer lasting. Upon completion of licensed activities, the marine environment would generally be expected to remain at or return to its normal long-term productivity levels.

No long-term productivity or environmental gains are expected because of the Proposed Action. The benefits of the Proposed Action are expected to be principally those associated with an increase in supplies of natural gas for domestic consumption.

5.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. Examples of such impacts would be the extinction of a species or permanent conversion of wetlands to open water. In either case, the loss is permanent.

The proposed Project would require an irretrievable commitment of natural resources from direct consumption of fossil fuels and construction materials. In addition, the purpose of the Project is to allow the burning of natural gas, an irreversible and irretrievable use of the gas resource. However, modern society is based on the consumption of fossil fuels, which will continue with or without the Project.

Some normal required operations could result in the destruction of marine life. Although the possibility exists that individual marine and terrestrial mammals, sea turtles, birds, and fish can be injured or killed, a lasting effect on the baseline populations is unlikely.

The potential exists that an accidental release of LNG at the DWP or of natural gas from the onshore facilities would result in irreversible damage. While the long distance of the

DWP from shore and the many safety features inherent in the Project as proposed make this unlikely, the risk cannot be completely eliminated and the potential for irreversible damage remains.

5.5 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

As per the CEQA (Section 15126.2(d)), this section discusses the ways in which the proposed Project could foster economic or population growth or induce additional housing either directly or indirectly in the surrounding environment.

Most projects could induce growth in the area in which they are located. The following criteria were used to evaluate the growth-inducing potential for the Project.

Could the Project foster economic or population growth?

No. The Project area is served by numerous natural gas suppliers and economic activity is already in place. The demand for energy is a result of existing customer demand and regional development. Although the availability of a new or alternate source of natural gas may contribute to stimulating economic or population growth, the natural gas supplied by Cabrillo Port would not be the sole supply of natural gas to the area. Therefore, the additional gas supplied by the proposed Project would not be a growth-inducing impact.

Would the Project provide new employment?

Yes. However, the limited additional employment is not expected to stimulate the construction of new housing that would result in physical impacts. It is anticipated that the proposed Project would provide temporary employment for up to 368 construction workers for eight months. Cabrillo Port anticipates employing 56 permanent staff to maintain and operate Cabrillo Port, 28 employees would be at the FSRU for a seven-day shift and 28 would be on leave at any one time. No new employees would be required to operate the onshore pipelines.

Would the Project provide access to undeveloped or underdeveloped areas?

No. The Project would not involve the construction of new roads. The Project would use existing rights-of-way.

Would the Project extend public service to a previously unserved area?

No. The Project would not bring natural gas to any area that was previously unserved. The primary result of the Cabrillo Port Project would be to meet increased energy demand from existing customers.

1 *Would the Project tax existing community services?*

2 No. The number of non-local workers would be small relative to current population in
3 the Project area. Local communities have sufficient infrastructure to meet the needs of
4 these non-local workers.

5 *Would the project cause development elsewhere?*

6 No. However, the purpose of the proposed Project is to meet anticipated baseload
7 energy demand from existing customers as well as new and expanding businesses
8 within the context of the Southern California economy.

9 **5.6 FLOODPLAIN MANAGEMENT EVALUATION**

10 The Federal Emergency Management Agency (FEMA) is responsible for delineating the
11 limits of the flood plain based on the evaluation of topographic and hydraulic data. The
12 proposed Project would be designed and installed in accordance with all floodplain
13 management regulations as they apply to natural gas pipelines within the Project site.